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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,191	09/26/2001	Isao Kakuhari	29288.2700	1298

20322 7590 05/03/2007
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EXAMINER

SELLERS, DANIEL R

ART UNIT	PAPER NUMBER
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2615

MAIL DATE	DELIVERY MODE
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05/03/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

09/964,191

Applicant(s)

KAKUHARI ET AL.

Examiner

Daniel R. Sellers

Art Unit

2615

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 20 April 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: 1-18 and 24.
Claim(s) withdrawn from consideration: 19-23.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
13. ☐ Other: _____.

Response to Arguments

1. Applicant's arguments filed 4/20/07 have been fully considered but they are not persuasive. The amendment has not been entered, because a new limitation has been introduced into the dependent claims by virtue of the proposed amendment to claim 1.

The rejection under 35 USC 103 mailed 1/25/07 is maintained.

2. McGrath teaches a rotation means, which corrects the sound image with respect to at least a fixed point. McGrath teaches the B-format in a preferred embodiment, however other formats, such as those used for films can also be used (Col. 4, lines 57-63 and Col. 10, lines 22-29). In this respect, the audio sound stage is rotated to the fixed point with respect to a listener's pitch, yaw, and roll of their own head. The application with Lucas Film THX encoding would allow a viewer/listener to wear a set of headphones, sit or lie down in a comfortable position, and experience the audio component of a film in the correct position with respect to a fixed point, i.e. dialog or sounds from the left of the sound stage will appear to come from the left with respect to the center of the film's image. Therefore, the rotation matrix means is a correction section.

3. McGrath teaches that the FIR filters, which are necessary to cause the perception of the rotation or correction, can be pre-computed (Col. 9, lines 60-65), and it appears that even though McGrath does not use a look-up table, or pre-computed tables, for the rotation matrix, it is obvious to use pre-computed values for calculating the matrix R.

The rotation matrix is disclosed in column 7. The matrix calculation requires three 3x3 matrices to be multiplied. The individual matrices contain computations of the sine and cosine of the three inputs, yaw, pitch, and roll. It is well known that a table of values can speed up the calculation of these trigonometric functions, and the symmetry of these functions can halve, or quarter the length of the necessary values in the table. Also, the cosine table can represent the sine table and one table can be used for each 3x3 matrix before the overall multiplication of the three matrices.

However, the claim limitation is "a memory for storing a plurality filter coefficients for correcting the acoustic signal..." and McGrath teaches FIR filters, which correct the signal according to head related transfer functions (Col. 8, line 55 - Col. 9, line 17). McGrath is storing coefficients to quickly compute virtual speaker placement, which is necessary for the perception of 3-dimensional sound while wearing headphones, and this computation, or step, is necessary in the overall rotation, or correction, of the signal. In the broadest sense, the storage of a coefficient is necessary even in a temporary calculation of the matrix R, or for the application of the matrix R in any other calculation.



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